

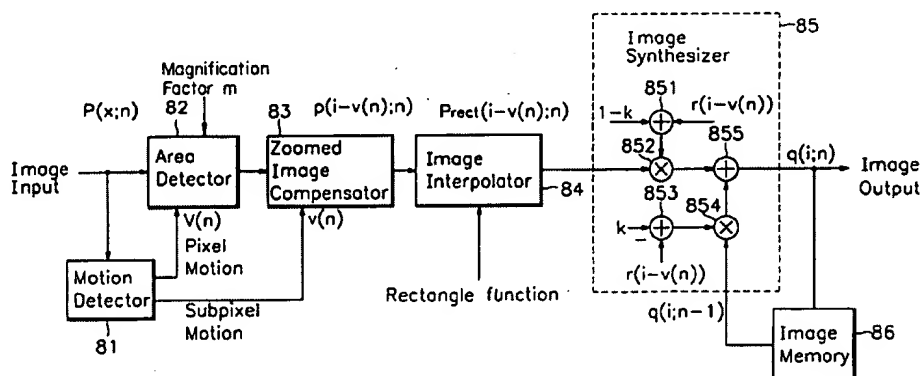
REMARKS

Claims 1-10 are all the claims pending in the application. This amendment adds claims 6-10, and addresses each point of rejection. Favorable reconsideration is added.

Applicant thanks the Examiner for acknowledging the claim for foreign priority under 35 U.S.C. § 119, noting that the priority documents have been received, and initialing the Information Disclosure Statement filed October 4, 2000.

Claims 1, 4 and 5 have been rejected under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent 5,666,160 to Hwang

Hwang discloses a synthesizer that synthesizes an image signal from the present frame output from the image interpolator 64 and an image signal from the previous frame output from the image memory 66 as $(1-k)$ and k , respectively, as shown, for example, in Fig. 8:



The image in Hwang is a magnified image (*see, e.g.*, col. 1, lines 14-18) and what is disclosed in Hwang is a zoom-in apparatus. Minute phase differences between frames due to motion (passive or active image shaking) is used to interpolate subpixel information, generating an increased number of pixels to resolve an image that consist of fewer pixels in a single frame. The image

resolution is thereby extended, so that when an area of an image is zoomed-in, a more detailed image is presented.

In contrast, the present invention concerns a zoom-out apparatus that obtains an image of an object that is larger than an angle of view of a camera by photographing parts of the object and synthesizing the obtained photographs to form the image of the larger object (*i.e.* a mosaic effect). In detail, information regarding the area of the images to be synthesized is obtained from motion vectors. That is, a reference point that represents the position of an area of the object is obtained from motion vectors. When an image obtained by photographing a portion “a” of an object is an image A and an image obtained by photographing a portion “b” of the object is an image B, information regarding the positions of the respective images is required to accurately synthesize the images A and B. The positional information is represented by motion vectors. In other words, assuming that the position of a camera when the image A is photographed is (X_a , Y_a) and the position of a camera when the image B is photographed is (X_b , Y_b), the distance between the two images, that is, ($X_b - X_a$, $Y_b - Y_a$), is obtained from the motion vectors. As Hwang does not disclose forming a zoomed-out image, Applicant submits that the claimed invention is not anticipated by Hwang. Reconsideration is requested.

Claims 2 and 3 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over Hwang in view of U.S. Patent 5,412,421 to Hale. Hwang does not disclose, or otherwise suggest, forming zoomed-out images as required in the claimed invention, as explained above. Applicant further submits that the combination of Hwang and Hale does not overcome the

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deficiencies of Hwang. Nor does either reference provide motivation to modify Hwang to form zoomed-out images. Reconsideration is requested.

Claims 6-10 are added to further describe the stored portions and the elimination of redundant information claimed in claim 5. No new matter is added. Entry and consideration are requested.

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

Respectfully submitted,



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